

Type Culture Collection (ATCC) and Leibniz Institute DSMZ-German Institute of Microorganisms and Cell Cultures (DSMZ).

Example 5 Treatment of Sinusitis

[0054] A subject with CRS will be treated by restoring the subject's own microbiome to a normal balance. An isolate for culture in vitro will be obtained from the nasal cavity of the subject and cultured in vitro. The isolate from the subject will be tested using the microbiome analysis described in Example 1 to determine the imbalance in the microbiome. In vitro, the isolate will be cultured to return the isolate to the normal microbiome, for example, by increasing the amount of bacteria from the genus *Corynebacterium* and/or bacteria from the genus *Peptoniphilus* in the isolate. The subject's own normalized isolate will be administered to the subject.

Example 6 Treatment of Asthma

[0055] A subject with asthma and CRS will be administered a composition including bacteria from the genus *Corynebacterium* and/or bacteria from the genus *Peptoniphilus* to treat the asthma by restoring a normal balance of the subject's microbiome. In some subjects, an agent that is bacteriostatic or bactericidal to the genus *Streptococcus* and/or the genus *Burkholderia* before, after or concurrently with the composition including bacteria from the genus *Corynebacterium* and/or bacteria from the genus *Peptoniphilus*.

Example 7 Microbiome Analysis

[0056] Microbiome analysis according to Example 1 will be performed on the subjects of Examples 3-6 before administering the composition to the subject. The microbiome analysis may also be performed after administering the composition to the subject and after one or more subsequent administrations of the composition.

Example 8 Animal Model

[0057] An animal model, for example of CRS, will be used to determine the restoration of the microbiome from the CRS microbiome to the normal microbiome of a human subject. The animal model restoration of the microbiome may be confirmed by the microbiome analysis according to Example 1.

[0058] The above Figures and disclosure are intended to be illustrative and not exhaustive. This description will suggest many variations and alternatives to one of ordinary skill in the art. All such variations and alternatives are intended to be encompassed within the scope of the attached claims. Those familiar with the art may recognize other equivalents to the specific embodiments described herein which equivalents are also intended to be encompassed by the attached claims.

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